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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
GOLLAMUDI, SHARMILA S	

ART UNIT	PAPER NUMBER
1616	

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/872,173	BURNSIDE ET AL.	
	Examiner	Art Unit	
	Sharmila S. Gollamudi	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Receipt Of Request for Continued Examination and the Amendments filed on February 5, 2004 is acknowledged. Claims **1-20** are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Savastano et al (5,681,584) by itself or in view of Faour et al (6,004,582).

Savastano et al teach a controlled release drug delivery device. The device contains a drug core, a delay jacket, a semi-permeable membrane, an additional drug layer that is placed between the delay jacket and semi-permeable membrane. Note claim 21. The additional drug layer may be the same or different from the drug contained within the core. Savastano teaches the placement of the additional drug layer to be dependent on the desired release rate. For instance, for immediate release

the additional drug layer is placed over the enteric coat or under the enteric coat for release in the upper GI tract. The reference teaches the placement of the additional drug layer between the delay jacket and the semipermeable membrane if an intermittent release is desired. Lastly, Savastano states that alternate active layers may be added. See column 12, lines 5-40. On column 9, lines 18-31, Savastano states that the composition of the delay jacket should be tailored the type of core utilized, the membrane utilized, etc. Thus, if a MOCOS (mono-compartmental system) core is used, the delay jacket is unnecessary since the MOCOS core contain excipients that induce the release of the active through the release orifice or membrane pores. The active agents that are taught to be suitable are various proteins and peptides (col. 6, lines 33-65). The semi-permeable membrane is made of cellulose acetate (example 4).

Savastano does not specify the concentration of the actives in the respective layers. The reference does not teach recited drug in claim 6.

Faour et al teach a multi-layered osmotic device wherein the device contains a drug core and external drug layer. Faour teaches the core drug may vary in amount of 0.1-99.9% according to the particular active used and the intended use of the device (col. 9, lines 28-36). The external coat drug contains from 0.1-99% varying according to the characteristics and properties of the particular drug, dose, desired effect, and intended use of device (col. 6, lines 42-54). Lastly, Faour teaches pseudoephedrine (examples) and instant actives (antihistamine, decongestants, sympathomimetics, antidepressants, etc.) on column 14.

It is deemed obvious to one of ordinary skill in the art at the time the invention was made to look to the teachings of Savastano et al and manipulate the concentration of the actives in the individual layers since these are variable parameters. One would be motivated to do so depending on the desired intended application of the osmotic device, the dose required for the treatment of the disease or symptoms, and the properties of the individual drug employed. Further, it is deemed obvious to a skilled artisan to utilize a particular drug depending on the physiological condition being treated.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Savastano et al and Faour et al and manipulate the concentration of the active contained in the device to obtain the desired effect. One would be motivated to do so depending on various parameters such as the identity and physical properties of the each drug employed, the dosage of drug employed, the desired effect of said drug, the intended application of osmotic device, and the physiological condition to be treated as taught by Faour et al. Further, one would expect similar results since Savastano and Faour are in the same filed of endeavor, i.e. the pharmaceutical art particularly pertaining to controlled release devices. Therefore, it is prima facie obvious to manipulate parameters encompassed by the prior art, given the ample guidance provided by the art.

Response to Arguments

Applicant argues that Savastano does not disclose or suggest a system without the delay jacket.

Applicant's arguments have been fully considered but they are not persuasive. As set forth above, the examiner points out that Savastano et al do in fact suggest the absence of a delay jacket on column 9, lines 18-25.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Savastano et al (5,681,584) in view of Weinstein et al (6,051,585).

The teachings of Savastano et al have been set forth above. Savastano teaches an array of drugs that are suitable for the invention.

Savastano et al do not specify the first active being pseudoephedrine and the second active being loratidine.

Weinstein teaches a single composition containing a decongestant (pseudoephedrine) and antihistamine (loratidine) to treat rhinitis. Note example 1.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Savastano et al and Weinstein et al and employ the instant combination therapy in Savastano's osmotic device. One would be motivated to do so since Weinstein teaches loratidine and pseudoephedrine provides relief and treatment for rhinitis. Furthermore, one would expect similar results since Savastano teaches the use of different active agents in different layers. Lastly, it is deemed an obvious modification to utilize different drugs in different layers since this is dependent on the intended use of the device.

Claims 1-5, 7-16, and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faour et al (6,491,949).

Faour et al disclose a an osmotic device containing an drug core (7), a semi-permeable membrane surrounding core (6), a second drug layer (4), and a semi-permeable layer surrounding layer (3) (Note figure). The device may optionally contain third drug layer. See column 4, lines 35-54. The semi-permeable membrane is preferably made of a cellulose ester (cellulose acetate-butyrate) (col. 7, lines 23-27). The individual drug containing layers may contain from 0.1-99.9% of active (col. 9, lines 33-35). Suitable active agents for the invention are taught on column 13 to column 17. These actives include antihistamines, decongestants (chlorophenramine, loratidine, and asemtizole), and insulin. The device may contain the same or different active agents. Faour et al state that the release rate of the active agent is dependent on several factors such as the 1) composition of the osmotic device 2) the solubility of the actives 3) the disposition of the passageways of the semipermeable membrane 4) the presence or absence of additional membranes on the first osmotic device and second osmotic device 5) the presence or absence of expandable polymers in the core. See column 5, lines 18-35.

Faour et al do not exemplify the recited greater concentration of the outer drug layer than the inner core or the recited limitation of "directly adjacent of the core portion."

It would have been obvious to one of ordinary skill in the art at the time the invention was made to look to the guidance provided by Faour et al and manipulate the conditions encompassed by the prior art. One would be motivated to manipulate the concentration of the active in the respective layers since Faour et al teach the active in

each layer be individually varied depending on the identity and physical properties of the each drug employed, the dosage of drug employed, the desired effect of said drug, the intended application of osmotic device, and the physiological condition to be treated.

Furthermore, one would be motivated to remove a semipermeable membrane between the first and second osmotic device with reasonable expectation of success since Faour teaches the manipulation of the release rate of the active agent by the presence or absence of membranes. Therefore, depending on the desired release profile, one would be motivated to add or remove a membrane or coating. Lastly, it is pointed out that claim 7 functions as a dual osmotic device with a third active layer and Faour et al teaches a dual osmotic system with an optional third active layer. Therefore, the rearrangement of parts within the teaching of the prior art is deemed an obvious variable parameter since the prior art provides the motivation to do so.

Response to Arguments

Applicant argues that the amendment "directly adjacent to the core portion" overcomes the prior art since Faour et al do not teach or suggest a system of the present claims.

Applicant's arguments have been fully considered but they are not persuasive. As set forth above in the rejection above, Faour et al clearly teaches manipulating the release rate of the active agent by the addition or absence of a membrane or coat on the second or first osmotic device. It is the examiner's position that the prior art is suggestive of the removal of the membrane to yield a desired effect. Thus, the applicant's modification in the removal of Faour's membrane is within the scope of the

Faour. Secondly, the examiner points out that although applicant claims that the instant invention is not a dual osmotic device, claim 7 encompasses a dual osmotic device since the claims recite two semipermeable membranes.

Claims 6, 17, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faour et al (6,491,949) in view of Hamel et al (4,801,461).

The teachings of Faour et al have been set forth above. Faour et al teaches the use of decongestants and sympathomimetic drugs such as ephedrine (col. 14, lines 54-44).

Faour does not teach the use of pseudoephedrine.

Hamel teaches instant drug is a sympathomimetic amine and is used for relief of symptoms associated with the common cold (col. 1, lines 20-47).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate pseudoephedrine into Faour et al's device since Hamel teaches the use of instant drug to relieve cold symptoms. One would be motivated to do so with the expectation of similar results since Hamel teaches the instant drug is a sympathomimetic amine and Faour teaches the suitability of sympathomimetic drugs in the device.

In regards to the combination therapy, it is deemed obvious to one of ordinary skill to choose drugs according to the symptoms to be treated.

Response to Arguments

Applicant argues the merits of Faour et al, which have been addressed above.

Claims 1 and 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Faour et al (6,248,359).

Faour et al teach a multi-tablet system containing oxybutynin as the active agent. The system contains a first tablet containing oxybutynin in a first concentration ranging from 0.1-99% and a second tablet containing oxybutynin in a second concentration ranging from 0.1-99%, wherein the respective tablet can release in a different location, i.e. upper GI tract versus lower GI tract. See column 1, lines 52-60 and column 3, lines 1-60. The dosage device may be formulated into pressed tablets, layered tablets, osmotic devices, etc. See column 5, lines 48-50 and examples. The system may be administered in a unit does comprising a first tablet and a second tablet or a single unit dose comprising both formulations in one dose. See column 7, lines 60-67. Generally the core of formulation A-I contain the first tablet with a concentration of 0.1-5mg of the active and the second tablet with a concentration of 2.5-25mg of the active. Faour states that the concentration ranged of the active agent will vary according to the active agent and the intended use of the osmotic device. See column 11, lines 8-19. For instance, Formulation G is a device with a rapid release layer containing 0.5mg of the active and in the inner core contains 2mg of the active. When the controlled release device is an osmotic device, the device is coated with a semipermeable membrane made of common materials known in the art such as cellulose acetate. See column 10, lines 45-55. The two tablets formulations are combined and coated with the suitable material, i.e. a semipermeable membrane for an osmotic device. See column 15, lines 34-55.

Faour et al does not exemplify all embodiments of the osmotic device, i.e. the instant concentration of the outer layer containing a higher concentration than the core.

It is deemed obvious to one of ordinary skill in that art to look to the guidance provided by Faour et al and manipulate the conditions encompassed by the prior art since Faour teaches that the concentration ranges vary according to the active agent and the intended use of the device. Therefore, a skilled artisan would manipulate the concentration depending on the desired effect of the device, the active agent employed, the therapeutic dosage. Further, Faour's range of the first tablet containing 0.1-5 mg of the active and the second tablet containing 2.5-25 mg of the active would implicitly fall within the instant range.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharmila S. Gollamudi whose telephone number is 571-242-0614. The examiner can normally be reached on M-F (8:00-5:00) with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SSG
3/1/04

MICHAEL G. HARTLEY
PRIMARY EXAMINER